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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,270	08/05/2005	Christian Krebs	18661-002US2US1/INO10504P	2861
26161 7590 06/22/2007 FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER NASSER, ROBERT L	
			ART UNIT 3735	PAPER NUMBER
			MAIL DATE 06/22/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/520,270

Applicant(s)

KREBS ET AL

Examiner

Robert L. Nasser

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-21 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/3/05 and 6/19/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 6-8, 10, 12-17, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Otterbein et al 2004/0258772. Otterbein et al teaches in paragraph [0069] a method for administering carbon monoxide (CO) to a patient by administering exogenous CO to the patient, determining the blood CO concentration, comparing the blood concentration to a desired level, and adjusting the amount of CO delivered based on the comparison. The steps can optionally be repeated. With respect to claim 2, the blood CO concentration is measured by measuring HbCO in the blood. Claim 6 is rejected in that the CO is delivered in a mixture with oxygen and nitrogen (see paragraph [0069], lines 1-10). Claim 7 is rejected in that the patient inhales the mixture. Claim 8 is rejected in that the CO is admixed into the breathing air (see paragraph [0069], line 8). Claim 10 is rejected in that the blood CO is controlled by the oxygen content of the gas. Claim 12 is rejected in that the patient is breathing on a respirator. Claim 13 is rejected in that the device uses 2 methods to measure CO content (see paragraph [0069], lines 16-20). Claim 14 is rejected in that the reference teaches an apparatus including a CO source, a mixer or dosing unit, a respirator to deliver the CO to the patient and a sensor means to measure CO in the blood, and a controller to

control the delivery of CO based on the measured values. Claims 15-17 and 19 are rejected for the reasons given above.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5, 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otterbein et al. Otterbein does not teach the exact type of sensor used to make the measurements. However, the examiner takes official notice that the recited sensor are well known in the art for making the measurement of blood CO. As such, it would have been obvious to modify Otterbein to use such a sensor, as it is merely the use of a sensor for its intended purpose. With respect to claim 11, the exact nature of the delivery of CO would have been a mere matter of design choice for one skilled in the art. Claim 18 is rejected in it would have been obvious to sound an alarm when the CO concentration exceeded a limit, to alert medical personnel of potential hazardous conditions.

Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otterbein in view of Stenzler et al 2004/0084048. Stenzler further teaches using a filter to filter the expiration of a person exposed to CO, to prevent the room air from being contaminated. Hence, it would have been obvious to modify Otterbein to use such a filter, to prevent contamination of the room air.

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Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 9 defines over the art in that none of the art has the pulse triggered by inhalation or exhalation.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fischer 7002672 shows a that delivers a cumulative dose of CO to a patient.

Yurgil et al 6436712 shuts off a CO source, i.e. a car, when blood CO levels exceed a threshold.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert L. Nasser whose telephone number is 571 272-4731. The examiner can normally be reached on m-f 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor II can be reached on 571 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert L. Nasser
Primary Examiner
Art Unit 3735

RLN
June 20, 2007



ROBERT L. NASSER
PRIMARY EXAMINER